

Information Products Bulletin

December 2007

Significant Information Products Released/Completed Since the Last Publication of the Information Products Bulletin - August 2007, v. 19

The Information Products Bulletin (IPB) is a joint effort between the U.S. Environmental Protection Agency (EPA) and the Environmental Council of the States (ECOS) to inform the public about "*significant information products*" being developed by EPA and some states, and identify opportunities for stakeholder and public involvement. "*Significant information products*" include products under development or modification by EPA and states that use national or regional data to describe environmental conditions, trends, and/or the performance of companies, facilities and communities.

The products described below have been completed and released since the publication of the Interim Information Products Bulletin.

Air

SMOKE Model

Federal vs. State: Federal

Description: The environmental community has developed advanced numerical air quality models to understand the interactions among meteorology, man-made and biogenic emissions and pollutant chemistry and dynamics. Emissions data from emissions models and regulatory inventories are one of the most important inputs for these air quality models. Scientists use air quality modeling for a number of purposes: for state and federal implementation plan development, for research on improved modeling methods, and most recently for air quality forecasting. In all of these cases, the trend has been to model larger regions, at a finer grid resolution, with more emissions sources, and for more purposes (e.g., ozone, particulates, and toxics). These needs require a computationally efficient, user-friendly, and flexible emissions data processing system.

The MCNC Environmental Modeling Center (EMC) created the Sparse Matrix Operator Kernel Emissions (SMOKE) Modeling System to allow emissions data processing methods to integrate high-performance-computing (HPC) sparse-matrix algorithms. The SMOKE system is a significant addition to the available resources for decision-making about emissions controls for both urban and regional applications. It provides a mechanism for preparing specialized inputs for air quality modeling research, and it makes air quality forecasting possible. The SMOKE system continues to develop and improve at the University of North Carolina at Chapel Hill's Carolina Environmental Program (CEP).

The SMOKE prototype, available since 1996, was an effective tool for emissions processing in a number of regional air quality modeling applications. In 1998 and 1999, SMOKE was redesigned and improved with the support of the U.S. Environmental Protection Agency (EPA), for use with EPA's Models-3 Air Quality Modeling System. The primary purposes of the first SMOKE redesign were support of (1) emissions processing with user-selected chemical mechanisms (described in more detail in Section 2.11, Chemical speciation processing) and (2) emissions processing for reactivity assessments (described in Section 2.14.3, Creating the reactivity control matrix). In 2002, SMOKE was enhanced to support driving the MOBILE6 model used to create on-road mobile emission factors and to support on-road and non-road mobile toxics inventories, resulting in SMOKE v1.5. In 2003, SMOKE v2.0 was created to include all toxic inventories, including point and non-point (stationary sources reported at the county level) sources. SMOKE v2.1, released in 2004, included updated versions of the BEIS3 and MOBILE6.2 models, the ability to use humidity data when processing on-road mobile sources with MOBILE6, and support for polar stereographic output grids. The latest version of SMOKE, SMOKE v2.4, features enhanced processing of fire data, more streamlined processing for CAMx, REMSAD, and UAM models, and a new approach to processing CEM data.

SMOKE can process criteria gaseous pollutants such as carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOC), ammonia (NH3), sulfur dioxide (SO2); particulate matter (PM) pollutants such as PM 2.5 microns or less (PM2.5) and PM less than 10 microns (PM10); as well as a large array of toxic pollutants, such as mercury, cadmium, benzene, and formaldehyde. In fact, SMOKE has no limitation regarding the number or types of pollutants it can process.

Contact Information:

- **AAship:** Office of Research and Development

- **EPA Office/Organization:** National Exposure Research Laboratory
Robin Baily, 919-541-7906, 919-541-0602(FAX), baily.rob@epa.gov

Expected Release Date: July 2007

Actual Release Date: August 2007

Comment Period: None available

Stakeholder/Public Involvement Method(s): Forum(s)/Workshop(s), Other, Stakeholder or expert consultation

Product URL: <http://www.smoke-model.org/index.cfm>

Cross-Media

U.S. Environmental Protection Agency FY 2007 Performance and Accountability Report

Federal vs. State: Federal

Description: EPA's 9th performance report under the Government Performance and Results Act assesses Agency performance results against annual performance goals for FY 2007 and progress towards EPA's strategic goals. The report also discusses FY 2007 performance against previous FY performance, as relevant to understanding annual accomplishments and progress longer-term. EPA's FY 2007 Performance and Accountability Report incorporates reporting information required by other management statutes (i.e., Federal Managers Financial Integrity Act; Inspector General Act Amendments; Chief Financial Officers Act) for management integrity, audit follow-up and audited financial statements.

Contact Information:

- **AAship:** Office of the Chief Financial Officer

- **EPA Office/Organization:** Office of Chief Financial Officer/Office of Planning Analysis and Accountability

Salvaterra Danielle, 202-564-1631, 202-564-1808(FAX), salvaterra.danielle@epa.gov

Sharon Vazquez, 202-564-1622, 202-564-1808(FAX), vazquez.sharon@epa.gov

Expected Release Date: November 2007

Actual Release Date: November 2007

Comment Period: None available

Stakeholder/Public Involvement Method(s): E-mail/Listserv, Forum(s)/Workshop(s), Mailing to stakeholders, Public meeting(s), Stakeholder meeting(s), Stakeholder or expert consultation, Web site/Web page

Product URL: <http://www.epa.gov/ocfo/finstatement/apr.htm>

Solid Waste and Emergency Response

2007 WasteWise Annual Report: Building Business and Community Partnerships

Federal vs. State: Federal

Description: WasteWise is a partnership program which works with organizations to reduce municipal waste and conserve energy through waste prevention, increased recycling and buying or manufacturing products with recycled content. The WasteWise Annual Report provides information on new program initiatives and showcases the accomplishments of WasteWise Partners over the past year. Award winners are listed in each category along with a short description of selected WasteWise activities.

Contact Information:

- **AAship:** Office of Solid Waste and Emergency Response

- **EPA Office/Organization:** Office of Solid Waste

Janice Sims, 703-347-8939, 703-308-8686(FAX), sims.janicehq@epa.gov

Terry Grist, 703-308-7257, 703-308-1561(FAX), grist.terry@epa.gov

Expected Release Date: December 2007

Actual Release Date: November 2007

Comment Period: None available

Stakeholder/Public Involvement Method(s): Other

Product URL: none available to the public until release

Water

1999 Drinking Water Infrastructure Needs Survey (DWINS)

Federal vs. State: Federal

Description: The 1996 Safe Drinking Water Act Amendments require that EPA conduct a national assessment of infrastructure needs for public water systems every four years. The 1999 survey follows up on the first study conducted in 1995 (released in 1997) and covers the 20 year period between 1999 and 2019. The survey identifies needs associated with treatment, source, storage, and transmission and distribution for more than 55,000 community water systems in the country. Results from the survey are used to determine the allotment of funding available to States through the Drinking Water State Revolving Fund (DWSRF) program. The assessment includes 4 major steps:

- collecting infrastructure needs from all public water systems serving greater than 40,000
- collecting needs from a statistically selected sample of systems serving fewer than 40,000
- developing models to assign costs to projects for which systems lacked cost estimates
- estimating the state by state needs for small, medium and large systems and aggregating the totals to determine the national need.

Contact Information:

- **AAship:**

- **EPA Office/Organization:**

Expected Release Date: Winter 2001

Actual Release Date: February 2001

Comment Period: None available

Stakeholder/Public Involvement Method(s):

Product URL: www.epa.gov/safewater/needs.html

National Estuary Program Coastal Condition Report

Federal vs. State: Federal

Description: The National Estuary Program Coastal Condition Report presents the condition of 28 estuaries covered by National Estuary Program based upon two major types of monitoring data for each estuary: (1) data collected as part of EPA's National Coastal Assessment program and; (2) data collected by individual NEPs or by NEPs in partnership with interested stakeholders, including state environmental agencies, universities, or volunteer groups. Together, this information paints a picture of the overall condition of the coastal resources of the NEP estuaries. Based upon NCA data collected from 1997-2003, the NEP estuaries are rated `fair` and scored equal to or higher than all other US estuaries combined despite increasing population pressures. During the past 20 years, population pressures along the coast have increased. By 2000, over two-thirds of the coastal population lived in NEP-coincident counties, which comprise less than 6 percent of the coastal land area.

Contact Information:

- **AAship:** Office of Water, Office of Research and Development

- **EPA Office/Organization:**

Barry Burgan, 202-566-1242, 202-566-1336(FAX), burgan.barry@epa.gov

Expected Release Date: June 2007

Actual Release Date: June 2007

Comment Period: 12/05/2004 - 06/05/2005

Stakeholder/Public Involvement Method(s): Stakeholder or expert consultation, Web site/Web page

Product URL: <http://www.epa.gov/owow/oceans/nepccr/index.html>